GRIN-Global Configure Guide

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May 22, 2023



This guide summarizes GRIN-Global (GG) server configuration parameters. Who should use this guide? Personnel responsible for administering GRIN-Global should become familiar with the contents of this guide. The guide provides detailed instructions for configuring the GRIN-Global **web.config** settings.

The Appendix contains this document's revision notes.

Comments/Suggestions:
Please contact feedback@ars-grin.gov or marty.reisinger@usda.gov with any suggestions or questions related to this document. This and other GRIN-Global related documentation can be downloaded from the GRIN-Global project website.

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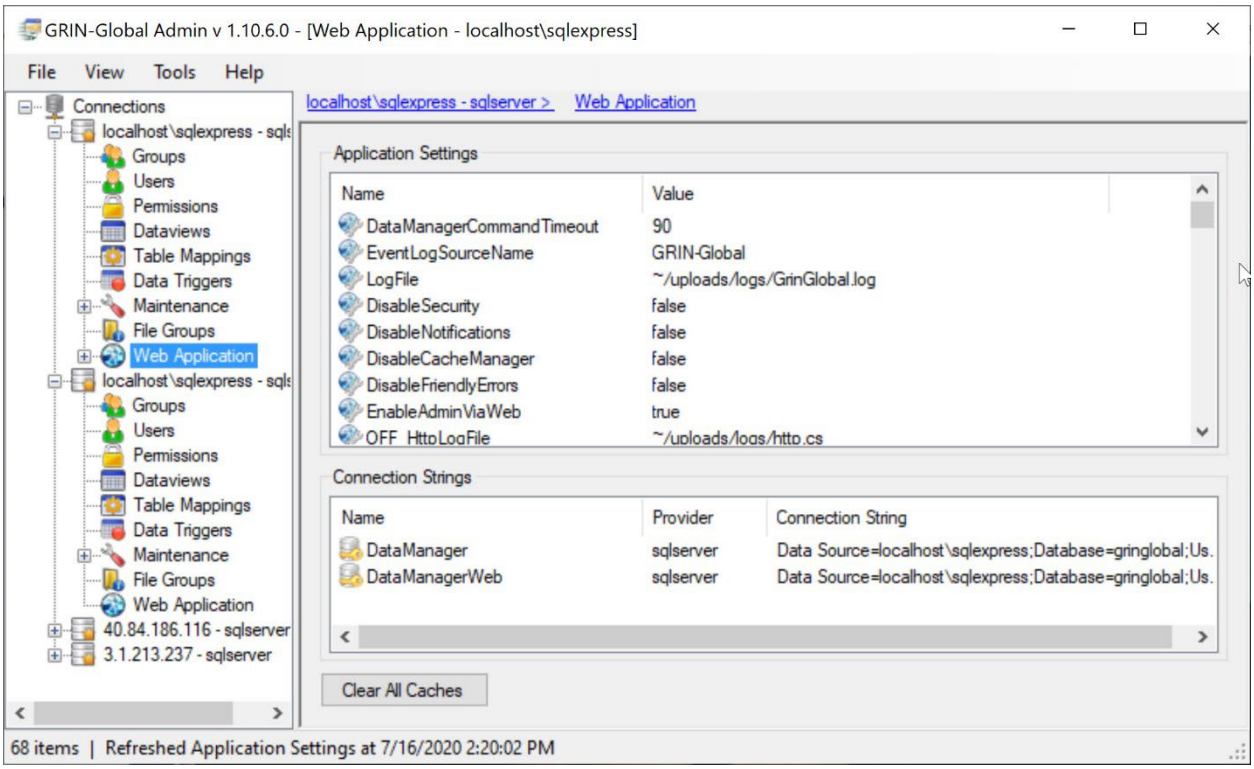
Configuration Options

web.config Overview

The Middle Tier / web application uses certain global settings. While many of the **Web Application** settings relate specifically to the Public Website, not all do. For instance, the **DisableSecurity** parameter is a setting that affects the Curator Tool. These parameters are assembled together under **Web Application** because the code for the middle tier and web services are interrelated and stored together.

When the web application is installed, most of the web application settings and connection strings are set as needed. Most of these settings will never need to be modified; however, they can easily be changed if necessary.

The settings may be edited within the AT the **Web Application** node, as shown below, but since they are stored in a **web.config** file, the file may be edited directly in the server's **inetpub\wwwroot\gringlobal** directory.

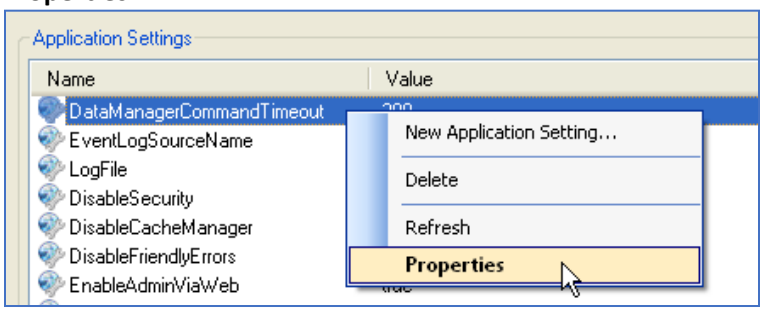




The administrator may only access these settings from a local machine.

Admin Tool Parameter Editing

Each application setting can be reviewed or edited by right-clicking on the parameter name; then select **Properties**.



Each setting is explained in the table that follows.

Note

Bolded parameters should be reviewed and modified to meet the organization's needs; it is recommended that those parameters not bolded should retain their default values.

Parameter and Description List

Parameter	Description
DataManagerCommandTimeout	Maximum time (in seconds) to wait for a SQL command to execute before throwing an exception error Example: **90**
EventLogSourceName	Category name of all entries written to the Windows Application event log from the web application Example: GrinGlobal Web
LogFile	Name of the file in which additional error information is logged. Should point to a file under ~/uploads/ path so that the web app has security rights to write to the file. Example: ~/uploads/logs/GrinGlobal.log
DisableSecurity	Either "true" or "false." With this setting, the administrator can globally enable or disable security in the *Curator Tool*. To disable global security, set to "True." When this parameter is "true," permissions are completely ignored. **False** is the default.
DisableNotifications	Inactive -- was planned to be used to disable sending queued notification email for the feedback program, but it is not implemented. **False** is the default.
DisableCacheManager	For troubleshooting purposes, all caching mechanisms can be shut off here. Valid values are "true" or "false." **False** is the default.
DisableFriendlyErrors	For troubleshooting purposes, the "nice" error page can be disabled so the raw error information is displayed. Valid values are "true" or "false." **False** is the default.

Parameter	Description
EnableAdminViaWeb	If "false," Admin pages on website will not function properly. Valid values are either "true" or "false." **True** is the default.
Off_HttpLogFile	Inactive - not used.
AnonymousUserName	This is the GG UserID that the web application uses as a login when the visitor has not yet logged in under his own credentials. Example: **guest**
AnonymousPassword	Password for the above Example: ???
GoogleMapsAPIKey	The Google Maps API lets you embed Google Maps in your own web pages. A passphrase is required by Google Maps for the mapping portion of the GRIN-Global web application to work properly. For localhost, this is already provided; for your GG server, you will need to access Google for the key. (See the **GoogleMapsAPIKey** section immediately following this table for detail.)
smtp Server	Address of the mail server sending messages. Default: your-email-server-name
EmailFrom	The "from" email address produced when the Public Website sends email messages. Default: **your-email-from-address**
WebSearchableIndexes	[not functional – needs to be removed from the AT] The search engine uses the records in the system sys_search_autofield table to find the results when doing a search on the public web site's plain accession search and the in the Search Tool's text box search. (Use the get_search_autofield dataview to display the records; records can be added to the sys_search_autofield table using SSMS to broaden the searches.)
AllowCookies	Valid values are either "**true**" or "**false**." If true, the application will use a computer cookie on the PC to store small data such as the language preference, etc. Deafault: **true**
EmailHelpTo	The email address that will receive the message when the user completes the Public Website's "Contact Us" form. Example: **grin-global.feedback@ars-grin.gov**
GeneBankName	Indicates what text will be displayed in the Public Website's header area Example: **GRIN-Global Release 1.7**
DefaultWebTheme	Designates which stylesheet to be used for the Public Website. The style sheets are stored in **C:\Inetpub\wwwroot\gringlobal\styles** Example: **theme1**
SafeImagePath	Example: <add key="SafeImagePath" value="http://www.ars-grin.gov;http://www.grin.gov"/>, If image has http path, only these are accepted for display ("approved image servers" – in addition to the GG server. (If a curator entered a URL

Parameter	Description
	such as http://bad-place.com/evil-file, the PW pages wouldn't display the link because it wasn't to a server on the SafeImagePath. Example: http://www.ars-grin.gov/;http:www.grin.gov
UnSafeFileExtension	Example: <add key="UnSafeFileExtension" value="exe;zip;asp;aspx;js;htm;html;shtml"/> Any file with these extensions will not be allowed to be uploaded by users to the server. Example: exe.zip;asp;aspx;js;htm;html;shtml
DefaultDownloadURL	Example: <add key="DefaultDownloadURL" value="http://distribution.grin-global.org/gringlobal/gui.asmx"/>: For a new machine, the first time the GG Updater is run, this will be the location where the Updater will look for the server elements. Example: http://distribution.grin-lobal.org/gringlobal/gui.asmx
WebHelpURL	Example: http://www.ars-grin.gov/npgs/gringlobal/HTML5/ PW2 (as of Aug 2020) https://www.grin-global.org/help_pw2
WikiURL	Example: https://www.grin-global.org/
EmailOrderTo	Example: <add key="EmailOrderTo" value="laura.gu@ars.usda.gov;admin@something.com"/> When a genebank has one specific email to forward the germplasm request to, fill this parameter. However, it is possible to have emails go to multiple sites when the germplasm is managed at these sites. For more details, see EmailOrderTo.
HomePage	Example: http://www.ars-grin.gov/npgs/index.html
MakeReportsExternal	Default: false "False" requires users to login in order to see the Reports menu option. When set to "True," all users see reports even without logging in.

Parameter	Description	Example
SysChangePasswordRequiresSSL	Is an SSL connection required for the ChangePassword method. Recommended to set to “true” since the password is sent as plain text only during the password change.	FALSE
SysUserPasswordMinLength	The minimum length accepted for a new password.	12
SysUserPasswordMaxLength	The maximum length accepted for a new password. (Note: ridiculously long passwords could take excessive server time to process.)	255
SysUserPasswordMaximumAge	The number of days a password is good for before a change is required. A setting of 0 means the passwords never expire.	60
SysUserPasswordMinimumAge	The minimum number of days before a password can be changed again.	1
SysUserPasswordWarning	The number of days before password expiration that the user gets a warning on login that the password will expire soon.	14
SysUserPasswordExpireLock	The grace period after password expiration that the user can still change the password themselves. After this an administrator is required to change the password. A setting of 0 means no grace period, a setting of -1 means infinite grace period to change the password.	30
SysUserPasswordMinDiffs	The minimum number of characters it is necessary to change for a new password.	3
SysUserPasswordHistory	The number of old passwords kept that can’t be duplicated when making a new password.	24
SysUserPasswordReqDigit	The regex pattern for determining a digit character	\p{Nd}
SysUserPasswordReqPatt1Ccnt	The minimum number of digit characters that must be included in a new password.	1
SysUserPasswordReqLower	The regex pattern for determining a lower case character	\p{Ll}
SysUserPasswordReqPatt2Ccnt	The minimum number of lower case characters that must be included in a new password.	1
SysUserPasswordReqUpper	The regex pattern for determining an upper case character	\p{Lu}
SysUserPasswordReqPatt3Ccnt	The minimum number of upper case characters that must be included in a new password.	1
SysUserPasswordReqSpecial	The regex pattern for determining a special character	[\p{S}\p{P}\p{Z}\p{C}]
SysUserPasswordReqPatt4Ccnt	The minimum number of special characters that must be included in a new password.	1
SysUserPasswordSaltBytes	The number of random bytes added as a salt to the hash of the stored password.	6

Parameter	Description	Example
SysUserMaxLoginFailures	The number of bad login attempts allowed for an account.	5
SysUserLoginFailPeriod	The number of seconds bad passwords attempts for an account are remembered.	900
SysUserLoginLockPeriod	The number of seconds an account is temporarily locked after exceeding the allowed login failures.	900
SearchEngineFormattedTextPattern	A regular expression controlling the search engine's detection of formatted QBE queries like @crop.name = 'WHEAT'. Do not alter unless absolutely necessary. Currently customized to allow floating point numbers overlooked by the current SE internal pattern. ^\s*@\w+\.\w+\s*(?:<>|<=|>=|!=|=|<|>)\s*(?:[-+]?[0-9]*\.?[0-9]+|'([^\f\n\r\v']|'')+')\s*|^\s*@\w+\.\w+\s+(?:not\s+|NOT\s+)*(?:in|IN)\s*\((?:\s*(?:\d+|'([^\f\n\r\v']|'')+')\s*[,|\)])*|^\s*@\w+\.\w+\s+(?:not\s+|NOT\s+)*(?:like|LIKE)\s+'([^\f\n\r\v']|'')+'\s*|^\s*@\w+\.\w+\s+(?:is|IS)\s+(?:not\s+|NOT\s+)*(?:null|NULL)\s*	

web.config Example

<connectionStrings>

<!--You will need to select which DataManager connection string to use. Windows Authentication, -->

<!--<add providerName="sqlserver" name="DataManager" connectionString="Data Source=localhost\sqlexpress;Database=gringlobal;Integrated Security=SSPI"/> -->

<!--<add providerName="sqlserver" name="DataManagerWeb" connectionString="Data Source=localhost\sqlexpress;Database=gringlobal;Integrated Security=SSPI"/> -->

<!-- or gg_user and gg_search -->

<!--Also, if you are using the full version of SQLSERVER, remove \sqlexpress from the connection string-->

<add providerName="sqlserver" name="DataManager" connectionString="Data Source=localhost\sqlexpress;Database=gringlobal;User Id=gg_user;password=gguPA55w0rd!!11"/>

<add providerName="sqlserver" name="DataManagerWeb" connectionString="Data Source=localhost\sqlexpress;Database=gringlobal;User Id=gg_search;password=ggsPA55w0rd!!11"/>

</connectionStrings>

<appSettings>

<add key="GeneBankName" value="Your Genebank Name Here"/>

<add key="HomePage" value ="~/search.aspx"/>

<add key="smtpServer" value="your-email-server-name"/>

```
    <add key="smtpPort" value="25"/>
    <add key="smtpAccount" value=""/>
    <add key="smtpPassword" value=""/>
    <add key="EmailHelpTo" value="your-help-desk-email-address" />
    <add key="EmailFrom" value="your-email-from-address"/>
    <add key="EmailOrderTo" value="" />
    <add key="GoogleMapsAPIKey"
value="ABQIAAAAngylyFxj48PWxqWPxITz0BRKyl0hIHbKMHiOnzfhSrokY-zWtxSMcol_0jdfVg5XN-
kTOSRanC-uhw" />
    <add key="MapTileSite" value="https://www.openstreetmap.org/copyright" />
    <add key="ShowTools" value="webtools, admins" />
    <add key="WebHelpURL" value="https://www.grin-global.org/HTML5/"/>
    <add key="WikiURL" value="https://www.grin-global.org/" />
    <add key="RequireCategory" value="false" />
    <add key="DefaultCountry" value="United States" />
    <add key="LogFile" value="~/uploads/logs/GrinGlobal.log" />
    <add key="SafeImagePath" value="https://www.ars-grin.gov;https://npgsweb.ars-grin.gov" />
    <add key="EncryptionPassword" value="CustomizeThisForSecurity" />
    <!-- <add key="SysUserLdapDomain" value="OU=ARS,OU=Agencies,DC=usda,DC=net" /> -->
    <!-- <add key="SysUserLdapIgnoreSuffix" value="@ars.usda.gov" /> -->
    <add key="DefaultDownloadURL" value="https://npgsweb.ars-grin.gov/gringlobal/gui.asmx" />
```

Configuring Germplasm Request emails for Sites - EmailOrderTo

Beginning with server version 1.10.6, several alternatives exist for determining which genebank staff receive emails when a germplasm request has been submitted via the Public Website.

When a requested submits a request via the GG website, a confirmation email is sent to the requester, but also, an email is sent to a person or site where the germplasm is maintained. The parameter key **EmailOrderTo** value trumps everything. If that value is set, the email will be sent to the specified email address. (The requestor always receives a confirmation email.)

Example (showing the email sent to two staff email addresses):

<add key="EmailOrderTo" value="laura.gu@ars.usda.gov;admin@something.com"/>

Beginning with server release 1.10.6, when the **EmailOrderTo** parameter is not used, or when the **web.config** file item = "", the order program needs a dataview named "**web_order_request_item_list**" for gathering the email address information about order items. NPGS use this dataview as shipped with the installation, with some customization, as shown in the CASE example below.

Another alternate way is explained in the Note below. If that method is used, then the administrator needs to rename the dataview **web_order_request_item_list_2** to **web_order_request_item_list**, replacing the default installed dataview with the "-2" alternate version.

When your organization has multiple sites from which germplasm requests are handled and shipped, you can adjust the **web_order_request_item_list** dataview to include a CASE section to determine which email is to be used for each item. You can also use this mechanism to send email notifications to multiple recipients for the same order request.

web_order_request_item_list dataview

```
SELECT
  s.site_short_name as site,
  i.inventory_id,
  t.taxonomy_species_id,
  (t.name) as name,
  'marty.reisinger@ars.usda.gov' as email,
  i.distribution_unit_code,
  i.distribution_default_form_code as form_type_code,
  a.accession_id,
…
```

Alternative, using a CASE statement:

```
SELECT
  s.site_short_name as site,
  i.inventory_id,
  t.taxonomy_species_id,
  (t.name) as name,

CASE s.site_short_name
     when 'BRW' then 'lj.grauke@ars.usda.gov'
    -- when 'CLO' then 'merrelyn.spinks@ars.usda.gov'
```

```
    when 'COR' then 'Missy.Fix@ars.usda.gov'
    when 'COT' then 'james.frelichowski@ars.usda.gov;janna.love@ars.usda.gov'
    when 'DAV' then 'ordersNCGR.davis@ars.usda.gov'

    when 'S9' then 'tiffany.fields@ars.usda.gov;ARS-S9Orders@ars.usda.gov'
    when 'W6' then
'dave.stout@ars.usda.gov;bo.gao@ars.usda.gov;barbara.hellier@ars.usda.gov;jmcruver@wsu.edu;lisa.t
aylor@usda.gov'
    else 'benjamin.haag@usda.gov'
  end as email,
  i.distribution_unit_code,
  i.distribution_default_form_code as form_type_code,
  a.accession_id,
…
```

The default CASE in the dataview looks similar to this:

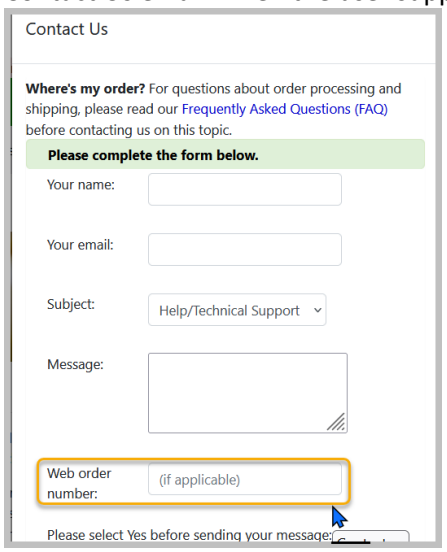
```
    CASE s.site_short_name
       WHEN 'SITE1' THEN 'curator1@example.com'
       WHEN 'SITE2' THEN 'curator2@example.net'
       ELSE 'LastResort@example.org'
    END AS email
```



A **web_order_request_item_list_2** dataview also exists. This is an alternative version that comes with the GG installation. It uses the email of a cooperator linked through a mapped, site-related cooperator group with the name "**ORDER**." If this method is preferred, edit the dataview for the desired email addresses and rename to **web_order_request_item_list**. (You must of course have the Group name set up and the cooperators mapped.)



Another dataview that is bundled with GG uses similar logic as in the CASE statement to send emails to the corresponding site. This dataview **web_order_email** controls who receives Contact Us email when the user supplies a valid web request number:



Appendix: Changes to this Document

– *May 22, 2023*

- Included additional information re the emailorderto parameter

– *December 8, 2020*

- corrected minor typos

– *July 16, 2020*

- created initial document